



Welcome to Ground Work

Nutrient Cycling

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Microbes play a very important role when it comes to nutrient cycling on your farm. That's why you want to make sure you have plenty of beneficial bacteria and fungi working in your soil. Using **SP-1™** and **Residue™** in your fertility programs, along with appropriate cover crops, crop rotations, and wise tillage, can help you ensure high numbers and good diversity of microbes in your soil. It is especially important this time of year to have lots of active microbes working in your soil, because **crop residues represent a huge energy and nutrient reservoir.**

Through the metabolism of soil microbes, energy trapped in organic matter fuels the process of nutrient **mineralization**. Mineralization is the conversion of nutrients from inaccessible forms to mineral forms which can be utilized by soil organisms and plants. Soil microbes break down most of the organic matter entering the soil and make nutrients stored in this organic matter available to plants.

Some nutrients become incorporated into the cells of those microbes. The process of nutrients being tied up in the cells of soil microbes is called **immobilization**. Microbes have short lifespans and the nutrients immobilized in their cells eventually become available to other microbes and plants.

Soil microbes are the driving force behind soil organic matter transformations such as mineralization and immobilization of nutrients. These conversions are the foundation for plant decomposition, soil aggregation/tilth, and nutrient cycling.

AgriEnergy Resources' biological products are loaded with *Bacillus*, *Pseudomonas*, *Streptomyces*, and other microbes that occur naturally in most soils and perform a variety of beneficial functions. Several microbes in AgriEnergy biologicals are able to fix atmospheric nitrogen and others are able to convert insoluble phosphorus into soluble forms.

Make sure you have N-fixers and P-solubilizers out in your fields helping cycle nutrients!